CLAIMS

What is claimed is:

1. A computer-implemented method for encoding a sequence of handwritten
strokes representative of constituent strokes of an ideographic character to obtain an
encoded input sequence, comprising:

    ascertaining a shape of a first stroke of said sequence of handwritten strokes;

    ascertaining a size of said first stroke;

    assigning a first code to said encoded input sequence responsive to a
determination of said shape of said first stroke and a determination of said size of said
first stroke, said first code being predefined to represent said shape of said first stroke
and said size of said first stroke, said first code being sufficiently unique to distinguish
said first code from other codes representing other permutations of shape and size of
said first stroke;

    ascertaining a shape of a second stroke of said sequence of handwritten
strokes, said second stroke being entered subsequent to an entry of said first stroke;

    ascertaining a size of said second stroke of said sequence of handwritten
strokes; and

    assigning a second code to said encoded input sequence responsive to a
determination of said shape of said second stroke and a determination of said size of
said second stroke, said second code being predefined to represent said shape of said
second stroke and said size of said second stroke, said second code being sufficiently
unique to distinguish said second code from other codes representing other
permutations of shape and size of said second stroke, wherein said second code
follows said first code in said encoded input sequence to reflect the temporal entry
sequence of said first stroke and said second stroke.

2. The computer-implemented method of claim 1 wherein said size of said first
stroke is one of a large size, a medium size, and a small size with respect to said shape
of said first stroke, and said size of said second stroke is one of said large size, said
medium size, and said small size with respect to said shape of said second stroke.

3.   The computer-implemented method of claim 1 wherein said shape of said first stroke is one of a vertical shape and a horizontal shape.

5   4.   The computer-implemented method of claim 3 wherein said size of said first stroke is one of a large size, a medium size, and a small size.

5.   The computer-implemented method of claim 3 wherein said first stroke is different from said second stroke with respect to at least one of shape and size, first
10 code is a first single Roman alphabet character and said second code is a second single Roman alphabet character different from said first single Roman alphabet letter.

6.   The computer-implemented method of claim 5 wherein said sequence of handwritten strokes is entered in a touch-sensitive input area comprising a plurality of
15 input zones, said plurality of input zones being represented by a plurality of unique zone codes, said computer-implemented method further comprising:
        ascertaining a first starting zone that contains a starting point of said first stroke, said first starting zone being one of said plurality of input zones; and
        assigning a third code to said encoded input sequence responsive to a
20 determination of said first starting zone that contains said starting point of said first stroke, said third code being one of said plurality of unique zone codes, wherein said third code is associated with said first code in said encoded input sequence.

7.   The computer-implemented method of claim 6 further comprising:
25   ascertaining a second starting zone that contains a starting point of said second stroke, said second starting zone being one of said plurality of input zones; and
        assigning a fourth code to said encoded input sequence responsive to a determination of said second starting zone that contains said starting point of said second stroke, said fourth code being one of said plurality of unique zone codes,
30 wherein said fourth code is associated with said second code in said encoded input sequence.

8.	The computer-implemented method of claim 6 wherein each of said plurality of unique zone codes is a single alphanumeric character.

9.	The computer-implemented method of claim 6 further comprising:

5	ascertaining a first ending zone that contains an ending point of said first stroke, said first ending zone being one of said plurality of input zones; and

assigning a fourth code to said encoded input sequence responsive to a determination of said first ending zone that contains said ending point of said first stroke, said fourth code being one of said plurality of unique zone codes, wherein said

10	fourth code is associated with said first code in said encoded input sequence.

10.	The computer-implemented method of claim 6 wherein one of said plurality of input zones is represented by an absence of a zone code, each of all other ones of said plurality of input zones is represented by a respective one of said plurality of

15	unique zone codes.

11.	The computer-implemented method of claim 1 further comprising:

ascertaining a shape of a third stroke of said sequence of handwritten strokes, said third stroke being entered subsequent to an entry of said first stroke and said

20	second stroke;

ascertaining a size of said third stroke of said sequence of handwritten strokes; and

assigning a third code to said encoded input sequence responsive to a determination of said shape of said third stroke and a determination of said size of

25	said third stroke, said third code being predefined to represent said shape of said third stroke and said size of said third stroke, said third code being sufficiently unique to distinguish said third code from other codes representing other permutations of shape and size of said third stroke, wherein said third code follows said second code and said first code in said encoded input sequence to reflect the temporal entry sequence of

30	said first stroke, said second stroke, and said third stroke.

12.   The computer-implemented method of claim 1 wherein said ideographic character is one of a Japanese ideographic character, a Chinese ideographic character, and a Korean ideographic character.

5   13.   A computer-implemented method for obtaining a list of candidate selections comprising at least a first incomplete ideographic character and a first complete ideographic character from a database of complete ideographic characters and incomplete ideographic characters, each of said complete ideographic characters and said incomplete ideographic characters in said database being associated with a

10   respective one of a plurality of code sequences, each of said plurality of code sequences representing information pertaining to shape, sequence, and one of stroke location information and stroke size information for strokes of one of said complete characters and incomplete characters in said database, said first incomplete ideographic character having an associated first code sequence stored in said database,

15   said first code sequence being one of said plurality of code sequences and representing information pertaining to shape, sequence, and one of stroke location information and stroke size information for strokes of said first incomplete characters, said first complete ideographic character having an associated second code sequence stored in said database, said second code sequence being another one of said plurality of code

20   sequences and representing information pertaining to shape, sequence, and one of stroke location information and stroke size information for strokes of said first complete ideographic character, said computer-implemented method comprising:

receiving an encoded input sequence, said encoded input sequence representing information pertaining to shape, sequence, and one of stroke location

25   information and stroke size information for a stroke set of a given character, the number of strokes in said stroke set is fewer than the number of strokes in said given character;

searching through said plurality of code sequences to find matched sequences, each of said matched sequences representing one of said plurality of code sequences

30   whose codes contain at least said encoded input sequence, wherein said first code sequence and said second code sequence are among said matched sequences;

obtaining said first complete character from said first code sequence as a first candidate selection in said list of candidate selections; and

obtaining said second incomplete character from said second code sequence as a second candidate selection in said list of candidate selections.

14.   The computer-implemented method of claim 13 wherein both of said stroke location information and said stroke size information for strokes of individual ones of said complete characters and incomplete characters in said database are represented in said plurality of code sequences.

15.   The computer-implemented method of claim 13 wherein each of said plurality of code sequences is a unique combination of alphanumeric characters.

16.   The computer-implemented method of claim 13 wherein said encoded input sequence is a combination of alphanumeric characters.

17.   The computer-implemented method of claim 13 wherein said codes in said first code sequence represent said information pertaining to said shape, said sequence, and said stroke size information for said strokes of said first incomplete ideographic character.

18.   The computer-implemented method of claim 17 wherein said shape and said stroke size information for a given stroke of said first incomplete ideographic character are encoded by a single alphanumeric character.

19.   The computer-implemented method of claim 13 wherein said codes in said second code sequence represent said information pertaining to said shape, said sequence, and both said stroke location information and said stroke size information for said strokes of said first complete ideographic character.

20.   The computer-implemented method of claim 19 wherein said shape and one of said stroke location information and said stroke size information for a given stroke of said first complete ideographic character are encoded by a first single alphanumeric character, the other of said stroke location information and said stroke size information for said given stroke of said first complete ideographic character is

encoded by a second single alphanumeric character, said second single alphanumeric character being associated with said first single alphanumeric character in said second code sequence.

5   21.   The computer-implemented method of claim 19 wherein said second single alphanumeric character is adjacent said first single alphanumeric character in said second code sequence.

       22.   The computer-implemented method of claim 13 wherein said first complete

10   character is one of a complete Chinese character, a complete Japanese character, and a complete Korean character.

       23.   The computer-implemented method of claim 22 wherein said stroke set of said given character includes a vertical stroke.

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       24.   The computer-implemented method of claim 23 wherein said stroke size information for said vertical stroke is one of a large, medium, and small.

       25.   The computer-implemented method of claim 23 wherein said stroke location

20   information for said vertical stroke only relates to a starting location of said vertical stroke.

       26.   The computer-implemented method of claim 22 wherein said stroke set of said given character consists of a single stroke.

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       27.   The computer-implemented method of claim 22 wherein said stroke set of said given character consists of two strokes.

       28.   The computer-implemented method of claim 22 wherein said stroke set of said

30   given character consists of at least three strokes.

29.   A computer-implemented method for encoding a handwritten stroke set, each of said handwritten stroke set being representative of a constituent stroke of an ideographic character, to obtain an encoded input sequence, comprising:

ascertaining a shape of a first stroke of said handwritten stroke set;

ascertaining one of a location information and a size information pertaining to said first stroke; and

assigning a first code to said encoded input sequence responsive to a determination of said shape of said first stroke and a determination of said one of said location information and said size information of said first stroke, said first code being predefined to represent said shape of said first stroke and said one of said location information and said size information of said first stroke, said first code being sufficiently unique to distinguish said first code from other codes representing other permutations of shape and said one of said location information and said size information of said first stroke.

30.   The computer-implemented method of claim 29 wherein said ascertaining said one of said location information and said size information pertaining to said first stroke is ascertaining said size information pertaining to said first stroke, said first code is sufficiently unique to distinguish said first code from said other codes representing other permutations of shape and size information of said first stroke.

31.   The computer-implemented method of claim 30 where said first code is a single alphanumeric character.

32.   The computer-implemented method of claim 30 wherein said ideographic character is one of a Chinese character, a Japanese character, and a Korean character.

33.   The computer-implemented method of claim 32 wherein said handwritten stroke set consists of a single stroke.